

## **EXECUTIVE SUMMARY**

**9 February 2001**

**An Armored Cavalry Squadron deployed on a field training exercise designed to prepare the unit for upcoming force on force rotations against Blue Force units. The squadron went to the field on Wednesday, 10 January, for three days of training and support operations. Two soldiers volunteered to stay at the Unit Maintenance Collection Point (UMCP) to provide refueling services.**

**On 11 January 2001, the two soldiers were given a refueling mission scheduled for 1600 to 1800 that same day. The soldiers completed their mission around 2345 and returned to the UMCP and went to sleep in their Crew Tent. At approximately 0715, 12 January, a noncommissioned officer went to check on the soldiers when they failed to show up at their assigned location. Upon entering the tent, he smelled propane. Both soldiers were in their cots, with a portable space heater sitting on the tent floor. Attempts to awaken the soldiers failed and medical help was summoned. Neither soldier responded to treatment and both were declared dead.**

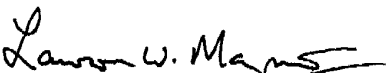
**The accident investigation board concluded that the accident was caused by "human error." At the time of the accident, there were no prohibitions against the use of commercial off the shelf portable space heaters; there is a ground precautionary message (GPM) from Soldier Support Command #97-01 031700ZAPR97, that recommends unflued commercial heaters be replaced with military standard heaters. The GPM states in its problem summary "Units are using locally procured commercial unflued or unvented (no smoke stack) space heaters in lieu of military heaters. These commercial heaters are inherently dangerous as they vent exhaust including carbon monoxide directly into living spaces. Standard military heaters are designed to vent combustion fumes outside, are tested for safe and effective field use by soldiers, and should be used exclusively."**

**The board cited several contributing findings:**

- 1. The unit did not have a training program for the heater and tent. Therefore, soldiers were not trained on operation, maintenance, or cautions/hazards of the heater/tent system.**
- 2. The soldiers did not heed the instructions on the portable space heater, which require adequate ventilation for use in tents. These instructions are readily visible on the heater head. They did not heed the caution stenciled on the floor of the tent, which says that adequate ventilation is required to prevent suffocation.**

3. The unit leadership did not maintain operational control of all the personnel in the UMCP and did not establish rules for heating devices although they knew that these devices were in use.

4. The unit's risk management procedures were weak and failed to identify the carbon monoxide hazard present with the use of heaters inside tents.

APPROVED BY:   
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